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SOCIAL CLASS AND MENTAL ILLNESS RECONSIDERED: THE ROLE OF ECONOMIC STRESS AND SOCIAL SUPPORT*

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Several bodies of research are reviewed for their contributions to defining the relationship of individual psychological disorder to social structure and process. The specific problem addressed is the relationship of social class to psychological impairment and its mediation. The generic problem is one of locating psychological processes and individual behavior within a societal framework. Recent work focusing on the effects of economic change and unemployment on psychological functioning is examined in relation to studies of the support characteristics of families and social networks pertinent to psychological well-being. An integration of this literature is presented based on the interdependency of stress and support variables and is, in turn, employed in a conceptualization of the relationship between social class and psychological disorder. It is argued that stress and support factors are systematically organized within classes at several levels of analysis and constitute critical conditions of class membership related to psychological functioning.

In this paper we aim to reexamine the relationship of psychiatric dysfunction to large-scale social structures and processes in light of recent studies of the psychological consequences of economic stress and social support. This effort is related to the more generic problem of conceptualizing psychological processes and individual behavior within a societal framework. While such a focus presents a challenge to the traditional conceptual boundaries of sociology and psychology, awareness of the problem is shared by diverse investigators who argue that reductionism in psychological theory invariably obscures the social bases of human behavior (Buss, 1975; Israel and Tajfel, 1972; Moscovici, 1972). Recent tendencies in clinical psychology and related fields to conceptualize etiological and maintenance processes associated with mental disorder in social and environmental terms are a positive recognition of the artificiality of treating the individual level of analysis as autonomous from macrosocial processes. However, social processes examined in clinical research are generally micro-

processes which have been abstracted from important relationships within their larger social context. For example, considerable research has been devoted to the investigation of family process and psychological impairment. However, the psychological impact of a process variable such as parental communication patterns or power relationships within the family may vary as other characteristics of family structure and process differ and, more importantly, as the larger social context within which the family is situated changes. Without attention to these contextual factors, meaningful assessment of those variables for which there is an assumed relationship to mental disorder is problematic.

Our conceptualization of the relationship of large-scale social structures and processes to individual psychological dysfunction draws on several existing bodies of research. Each research domain represents part of the social context within which each of the others becomes operational. Existing findings are examined in each of these areas for their contribution to explicating how concrete social structure and processes mediate the psychological impairment of individuals. We begin with an overview of previous work directed at the relationship of social class to mental illness, drawing heavily on studies of the epidemiology of mental illness. On

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the basis of this review we argue that social class is a principal aspect of social structure relevant to the psychological well-being of the individual. The class-mental illness relationship is then examined in terms of the organization, within social classes, of stress and support factors that have demonstrable relationships to psychological functioning. Stress is discussed in the context of two recent bodies of research, one pertaining to the relationship of economic change and employment-related stress to mental disorder, and the other to the role of the life event as a precipitator of mental illness. Social network theory as well as standard indicators of material resources are discussed as the basis for specifying support factors that may influence the extent to which an event is experienced as stressful. In sum, we conceptualize the relationship of social class to psychological functioning in terms of varying stress and support conditions associated with social class membership.

SOCIAL CLASS AND MENTAL ILLNESS

One of the central issues to emerge from large-scale investigations of socio-environmental factors associated with mental disorder has been the elusive problem of how and to what extent social class is related to psychological impairment. Some of the earliest direct evidence that social class and mental illness, specifically schizophrenia, might be significantly related is reported by Faris and Dunham (1939), who found that centrally located areas in metropolitan Chicago, often the loci of poverty, were associated with the highest rates of first admissions to psychiatric hospitals for schizophrenia. To the extent that sizeable "natural areas" of the city can be accurately classified in socioeconomic terms, and psychological impairment measured by hospital admissions, this research identified the broad contours of an association between psychological status and socio-environmental conditions.

These findings are supported by those obtained in the classic New Haven study by Hollingshead and Redlich (1958), which employed a direct measure of

socioeconomic position. The major findings of this research are widely known. While the observed inverse relation between socioeconomic status and rates of functional psychoses has been correctly attributed to class IV and V differences (Mishler and Scotch, 1963), this work has been important in establishing the credibility of a relationship between conditions of class life and the incidence and prevalence of mental disorder.

The measurement of psychological impairment in a nontreatment population in the early Midtown Manhattan study (Srole et al., 1962) provided one of the first opportunities to assess the relation of social class to psychological dysfunction in the population at large. The finding of a strong, inverse relation between class status and degree of rated impairment in that work led to numerous attempts to replicate that finding, as in a recent study reported by Schwab and Schwab (1973). Based on field assessments of psychological dysfunction among residents of two Florida catchment areas, they found that social class was the single most important socio-demographic factor associated with psychological disorder.

A large number of additional studies have reported evidence of an inverse relationship between socioeconomic status and various forms of mental disorder, employing widely differing measures for each variable (Clark, 1949; Cole et al., 1957; Gardner and Babigian, 1966; Phillips, 1966; Schroeder, 1942). The precise nature of this relationship, however, is not clear and has been described as linear (Srole et al., 1962), curvilinear (Jaco, 1960), and heavily influenced by the lowest class (Hollingshead and Redlich, 1958). The general relationship appears even more complicated when different categories of mental illness are examined separately. The neuroses, for example, have sometimes been found to vary directly with socioeconomic status whereas the inverse relation is more often reported for psychotic disorders (Hollingshead and Redlich, 1958). Nevertheless, Dohrenwend and Dohrenwend (1965) report that their review of 24 studies permitting a test of the relationship between socioeconomic status and mental illness produced

19 studies in which the highest rate of judged psychopathology occurred in the lowest socioeconomic status, and only one in which it occurred in the highest status group. They conclude, as have others (Cassell, 1966; Roman and Trice, 1967), that the relationship between low socioeconomic status and high rates of mental disorder should be regarded as "an important source of working hypotheses" (Dohrenwend and Dohrenwend, 1965:61).

Before we can adopt the assumption of a general relationship between social class and either treated or untreated disorder, it is necessary to comment on several major sources of dispute regarding this relation. Levy and Rowitz (1973) raise questions about the findings of other investigators who report higher rates of psychological disorder in poverty areas than in more stable, affluent communities. Nearly thirty years following the initial Chicago study of Faris and Dunham (1939), these researchers reassessed first and total admissions of psychiatric patients to public and private facilities in metropolitan Chicago. Contrary to previous findings, they observed the former pattern of hospital admissions rates only for total hospital admissions; first admissions appeared to be distributed unsystematically throughout the metropolitan area.

Consistent with these findings are those reported by Dunham (1965) in a comparative analysis of first admissions and readmissions of schizophrenics in two Detroit communities. What at first appeared to be a significantly higher rate of first admissions coming from the less affluent area was subsequently found to be inconsequential when separate analyses were conducted for patients with fewer than five years of residence in their communities. The three-to-one ratio of first admissions rates for the less affluent neighborhood as compared with the wealthier community was fully accounted for by those patients with relatively short histories in their communities. Dunham interprets these findings in terms of a social selection process. Schizophrenics are distributed within the larger population as a result of the same forces that account for mobility in the general population, and are not simply the product of socio-

environmental conditions associated with lower class position.

The real significance of both of these studies is difficult to assess. Their reliance on first-admissions data as the sole indicator of incidence of schizophrenia confounds issues of service delivery and etiology. Furthermore, Dunham's argument that social selection accounts for the differences in the distribution of first admissions between his two communities does not rule out the alternative hypotheses that onset of schizophrenia in deteriorating areas may be related to the greater stress and isolation that a newcomer experiences in those settings compared with the adjustment experience encountered in more affluent areas. In fact, what is especially compelling about the social-selection hypothesis is its implicit suggestion that the complex process underlying the social distribution of mental illness cannot be accounted for simply in terms of either the dynamics of social mobility or the direct impact of social stress.

In spite of the continuing dilemma regarding causality, the weight of existing evidence strongly indicates that social class is related in important ways to mental disorder. The relation reflects multiple interactions between the complex conditions of class position and at least three facets of psychiatric impairment—etiology, maintenance, and treatment. A finer specification of this relationship requires the identification of concrete socio-environmental factors involved in this relation and the unconfounding of etiological and treatment aspects of mental dysfunction. It is not paradoxical to us that a definitive relationship between social class and psychological impairment has yet to be specified. There is no reason to assume that an individual's membership in a social class implies a rigid, narrowly circumscribed life context shared equally by all members of the same class. Considerable variation in family and community experience, for example, may characterize individuals within the same class position even though fundamental differences exist among classes. In view of the fact that such variables may be confounded in much of the research on social class and mental illness, it is difficult not

to be impressed with the largely consistent report of a general relationship between these factors.

What follows is a review of several additional bodies of research which have contributed to our formulation of the critical aspects of class life that are related to psychological impairment. We then return to a discussion of the particular conceptualization of the role of social class that emerges from such research.

STRESS AND MENTAL DYSFUNCTION

Epidemiological Studies

For those prepared to entertain the likelihood that social class and mental disorder are related in significant ways (Cassell, 1966; Dohrenwend and Dohrenwend, 1965; Kohn, 1970), the critical issue has been to uncover the major characteristics of this relation. As suggested in the previous review of epidemiological studies, at least two significant camps have emerged in response to this issue. Broadly speaking, they can be identified as social-selection and social-causation theorists. The former (Dunham, 1965; Ekblad, 1948) explain the distribution of mental disorder by area or class as resulting from natural forces operating in a mobile society to distribute its members throughout the network of social positions and ranks. No special attention is paid to characteristics of social mobility unique to the mentally disabled other than to acknowledge that their deficits interact with social-selection processes to determine their distribution.

The social-causation hypothesis emphasizes the role of social conditions in precipitating or exacerbating mental dysfunction and argues that class differences in the incidence and prevalence of psychological impairment reflect variations in these conditions (Dohrenwend and Dohrenwend, 1965; Kohn, 1970). The central construct in this position is stress, which may have its origins in the quality of community or neighborhood life (Faris and Dunham, 1939; Leighton et al., 1963), the family (Brown et al., 1972), or the exigencies of day-to-day experience (Clark, 1949). Differences in both intensity and quality of stress across social

classes are assumed to account for the relation of social class to mental disorder. The most direct test of this hypothesis was performed by Langner and Michael (1963) as part of the analysis of data collected in the Midtown Manhattan study (Srole et al., 1962). Employing 14 stress factors, they examined relationships among adult and childhood stressors, socioeconomic status, and degree of impairment, and found modest support for their hypothesis that greater stress in the lower classes contributes to the higher level of rated impairment of respondents from this class. Findings were most pronounced for individuals in the lower class with symptoms judged to be psychotic.

In a review of the Midtown study, Dohrenwend and Dohrenwend (1965) offer the intriguing hypothesis that situational stress factors in particular play a central role in producing behavioral and emotional responses which are often presumed to be symptomatic of psychological impairment. They argue that a significant proportion of adult symptomatology is only the response of normal persons to unusually stressful conditions and that findings such as those of Langner and Michael (1963) and Hollingshead (1947) provide evidence that a broad range of stressors are simply overrepresented in the lower classes. They conclude that psychological disorders of considerable duration and time-limited reactions to situational stress combine to produce the higher rates of impairment in the lower classes, and that epidemiological studies of mental illness have failed to make this distinction.

However, the reviewers overlook the possibility that much of the rated symptomatology in the lower classes may be stress-related and persistent as a function of the chronicity of stressors in the circumstances of lower-class life. For example, in his observation that unemployment is one important stressor for lower-class individuals, Hollingshead (1947) identified a stressful event that may have considerable duration for members of the lower classes. Gore (1973) found that for large numbers of working-class men the stress of unemployment often persists for a year at a time, passing through stages of antici-

pated loss of job, job loss, failure to find new work, and finally, reemployment. Current data for the State of Massachusetts reveals that 79 percent of unemployed men and women over the age of 45 fail to find new employment for 30 weeks or longer. Reactive impairment, therefore, may be extended as well as momentary, depending on the nature of the stressors encountered.

It is not our purpose to join in the continuing debate over the relative merits of the social-selection vs. social-causation interpretations of epidemiological findings. In fact, we have already suggested that they are not necessarily mutually exclusive hypotheses. Here we adopt the position that social structure has been adequately documented as one important determinant of the relationship between social class and psychiatric impairment, and that the combined findings from several new areas of research make a significant contribution to further understanding this factor.

Employment-Related Stress

The literature related to the effects of stress on individual functioning outside the field of epidemiological research is vast. However, we have been most interested in that aspect which pertains to stress associated with crises resulting from a changing economy. Some of the earliest work in this area was done by Komora and Clark (1935), who attempted to examine the impact of the Great Depression on psychological well-being during the period 1929–1932 by studying reports of increases and decreases in psychiatric admissions to over half the state facilities in the United States. Approximately 60 percent of the hospitals contacted reported apparent increases in first admission due to economic hardships, whereas 30 percent reported a decrease. A central problem in this research was the lack of a test period of sufficient length to establish a base rate for the effects of economic changes on admissions rates. An increase in admissions may have resulted, for example, from changes in either admission policies or hospital facilities corresponding with the economic crisis of the

depression, rather than from the hardships of unemployment and financial loss. While other studies of psychiatric admissions during the Great Depression have extended the period of observation somewhat and sampled larger concentrations of hospital facilities (Pugh and MacMahon, 1962), estimated changes in percent of first admissions with evidence of reaction to employment or financial stress (Dayton, 1940), and specified gross distinctions among presenting problems at admissions (Dunham, 1959), it remains unclear from these studies alone whether or not economic change significantly affects rates of new psychiatric admissions.

That unemployment may be of special significance in inducing stress reactions to economic change, however, is suggested by a number of other writers. In a series of extensive interviews with unemployed working-class men, Levin (1975) found marked reductions in feelings of self-esteem, accompanied by estrangement from family and friends and cognitive distortions in temporal perception. Wilcock and Franke (1963) made a similar observation in their study of the effects of permanent layoffs and long-term unemployment on psychological adjustment. They found that loss of self-esteem and deterioration of interpersonal relations have their roots in circumstances created by financial insecurity accompanying job loss. The objective condition of income loss gives rise to a reordering of relations with others, often resulting in secondary social stresses. In a study of hospitalized neurotics, Leavy and Freedman (1956) examined the problem of economic insecurity for a distinct nosological group and distinguished the stress associated with threats to subsistence from threats to self-esteem. Finally, Kasl (1974) concluded from a review of early studies of unemployment and mental health that the loss of self-esteem is the most consistently reported finding resulting from the combined effects of self-blame for unemployment and the hardships imposed by financial insecurity.

These diverse comments on the significance of work for the psychological well-being of individuals strongly attest to the role of employment-related stress in

the development of psychological impairment. They are, however, even more convincing in light of recent empirical work by Brenner (1973) that elaborates earlier attempts to examine the effects of the Great Depression on psychological well-being. Brenner's research represents a significant contribution to the study of social processes and their relation to psychological functioning. It introduces the techniques of time series and Fourier analysis to the study of economic change and its relation to first admissions to state and licensed private psychiatric hospitals in the state of New York. These procedures permit examination of short- and long-term covariation over time of multiple indicators of economic change and psychiatric dysfunction.

Employing these techniques, Brenner was able for the first time to solve the problem encountered by earlier researchers (Komora and Clark, 1935) of establishing a sufficient base rate for hospital admissions relative to the state of the economy in order to estimate whether or not specific short-term changes in the economy have an effect on hospitalization rates for mental disorder. Examining employment in manufacturing industries and first admissions to state and licensed private hospitals, Brenner established an overall inverse relation between these variables for the state of New York over the period 1852–1967: “relations found for the 19th century led to the conclusion that regardless of any third variable that is independent of both economic change and mental hospital admissions, the relation between changes in the economy and mental hospital admissions in N.Y. state was continuous for 120 years” (Brenner, 1973:36).

Controlling for age, sex, and diagnosis at admissions, Brenner found a correlation of -0.80 or higher (i.e. -0.80 to -1.00) for the majority of patient groups. Measured in several ways, the inverse relation was found to be more stable and direct for males vs. females, married vs. single, widowed, or divorced individuals, middle-aged adults vs. youth or the elderly, and grammar school and college educated vs. high school educated. Measures of the impact of economic change on

the degree of increase in hospital admissions relative to an economic downturn showed a somewhat different pattern. For example, until recently, those age and marital groups showing the least direct relation to employment changes appeared to suffer the greatest impact resulting from economic change during a downturn. On the other hand, no clear pattern of impact and directness of relation was found for admissions with different levels of education. What these findings indicate is that the zero-order correlation by itself gives no indication of the extent to which an observed relation is one of considerable reaction to economic change or simply a consistent but low-level response. Without care one may too readily assume that equally high correlations between admissions and changes in employment levels indicate that the significance of economic change for different groups of people is essentially the same. An independent measure of impact is needed to assess the degree to which economic change is reflected in level of hospital admissions.

Brenner also reports that since World War II for some groups and since 1955 for others, many of the differences between groups based on impact statistics begin to disappear. Younger people, single individuals, and women begin to show impact scores as high as those for groups who earlier demonstrated high impact. The three major educational groups also begin to respond to employment downturns with equal percent increases in admissions. Brenner interprets this trend as resulting from the combined effects of structural changes in the labor force (e.g. an increasing percentage of women) and a gradual lessening of the supportive resources of urbanized families. While many other interpretations might be made, it is significant that this basic shift in the sensitivity of some groups to economic change was detected at all.

Brenner's work provides major empirical support for our hypothesis that economically-related stress plays a significant role in the relationship between socio-environmental conditions and psychological impairment. The general pattern of his findings is impressive, especially the apparent recent increase in the

significance of economic change for risk of hospitalization for many groups. However, there are several acknowledged limitations inherent in the design of this investigation. One pertains to the problem of ecological fallacy. Relations among variables at the aggregate level do not necessarily replicate with units of analysis smaller than the aggregate. As Robinson (1950) demonstrated, an observed ecological correlation between illiteracy and race was significantly changed when data for individual subjects were analyzed. Variables showing a relation in the aggregate, as in the work of Levy and Rowitz (1973) and Dunham (1959), reflect processes and relations at the social-systems level which are not necessarily related isomorphically to dynamics at the individual level. Ecological analyses can be extremely useful, however, in generating hypotheses about relationships on a microlevel, especially when examined in conjunction with research directly measuring relations at that level. A direct test of Brenner's statewide findings would require the study of individuals for whom employment experiences and impairment indices are available.

Another problem with this study is the necessary indexing of the incidence of psychological disorder through the use of first-admissions statistics. In order to produce a time series of sufficient length representing the incidence of mental illness, Brenner was unavoidably constrained by existing archival data. Consequently, the problem of using a treatment census as a measure of the incidence of mental dysfunction is contained in his research. Similarly, the use of employment levels in manufacturing industries as the sole index of economic change in Brenner's study makes it difficult to assess whether or not the critical economic variable is economic change per se or, more narrowly, the crises of unemployment. However, with respect to other relevant research cited above, Brenner's findings are not inconsistent with the hypothesis that loss of employment is a critical event for the psychological functioning of individuals.

Our focus on the relationship of economic change to psychological impairment can now be defined more specifically

as the potential threat posed by events and crises related to the loss of employment to the material and psychological security of the individual. Employment-related stressors, in turn, are conceived as involved in the broader relationship of social class and psychological dysfunction via the social-causation hypothesis, which assumes differential distribution of life stresses across social classes. This position, however, does not imply that job loss invariably precedes psychological impairment. It does, however, reflect the influence of findings by Brenner (1973) that the availability of employment as determined by broad economic conditions had been demonstrated to relate consistently to psychiatric hospitalization. The more basic, underlying problem of establishing a relation is complicated by the possibility that psychological impairment in many instances is not solely an objective condition of the individual. For example, when the economy is into a growth phase and in need of increasing labor power, the criteria by which the individual's fitness for work is judged are not necessarily the same as those during an economic recession. Given that impairment can only be defined in relation to some performance criteria, its existence in degree and type depends heavily on the exigencies of performance settings which shape the momentary expectations and demands by which performance is judged. This assumption is reminiscent of Zubin's (1975) assertion that a prolonged schizophrenic episode results from social reactions to the schizophrenic person and not an internal pathogenic process. Assessment of impairment, therefore, requires the simultaneous measure of performance criteria and behavior in order to avoid undue "psychologizing" or "sociologizing" of the causes of impairment. This strategy is particularly important in view of the fact that a change in either standards of performance or behavior may result in the attribution of psychological dysfunction.

Employment-related stress has now been situated within the relationship of social class and psychological dysfunction largely on the basis of research which has established an ecological correlation between economic change and psychiatric

admissions. Other findings complementary to this line of reasoning can be found in a rapidly developing area of research which examines the effects of a variety of stress-inducing life events on the functioning of individuals. While it is not limited to the effects of economic stress alone, it provides further information regarding the viability of a social-stress approach to psychological impairment. Methodologically, this research also permits a test of the relationship of stress to impairment for individuals and groups of individuals and, therefore, complements the investigation of a similar relationship by Brenner (1973) at the social-systems level.

Life Events

Adolf Meyer is frequently cited (e.g., Holmes and Masuda, 1974) as the forerunner of researchers who have studied the effects of discrete, widely distributed life events on the physical and psychological functioning of individuals. Since Meyer, others have looked closely at the relationship between a large number of life experiences and both physical and psychological well-being (Dohrenwend and Dohrenwend, 1974; Holmes and Rahe, 1967; Rahe, 1972). By and large, events are defined as discrete happenings requiring some degree of readjustment in one's life circumstances (Holmes and Rahe, 1967). They include entrances and exits (e.g. birth of a child, death of a family member), events within and outside the control of the individual (e.g. increased problems with spouse, injury to spouse), and desirable and undesirable events (e.g. promotion at work, loss of a job).

Formal scaling of life events began with the work of Holmes and Rahe (1967), who developed the first widely used measure based on a pool of events drawn from records of clinical cases. This Schedule of Recent Events was later refined by employing the psychophysical technique of establishing subjective ratings of the life-change demands of each event relative to a fixed standard. The Schedule of Recent Events and its modified version, the Social Readjustment Rating Scale, have subsequently been examined cross-culturally and found to be highly correlated across

populations for rank order of events (Rahe et al., 1971).

Major studies employing these and related measures have been conducted to establish the relation of life events to such physical disorders as myocardial infarction (Rahe and Paasikivi, 1971), chronic asthma (Araujo et al., 1973), complications in pregnancy (Nuckolls et al., 1972), respiratory illness (Jacobs et al., 1970), and general physical symptomatology (Wyler et al., 1971). Other researchers have sought to relate life events to underlying physiological processes such as secretion of epinephrine, serum cholesterol, and catecholamines (Theorell, 1974) that may have etiological significance for disease processes (Rahe et al., 1974).

The work of Holmes and Rahe and their associates is representative of methods and findings in life-events research. Rahe et al. (1970) administered the Schedule of Recent Events to naval and marine personnel of three cruisers prior to six- to eight-month overseas deployment. Life events were assessed for the six-month period prior to active duty and records of all illnesses reaching the ships' dispensaries were obtained. Individuals with high life-change scores were found to have experienced significantly greater numbers and severity of illnesses than subjects with low scores. Similar findings have been reported for college students (Jacobs et al., 1970), medical students (Holmes, 1970), and various occupational groups (Holmes and Holmes, 1970).

Psychological impairment, including depression (Paykel et al., 1969), anxiety (Lauer, 1973), schizophrenia (Brown and Birley, 1968), psychiatric hospitalization (Fontana et al., 1972), suicide attempts (Paykel, 1974), and general psychiatric symptomatology (Myers et al., 1971) have also been shown to be moderately but consistently related to the experience of life events. Dohrenwend (1973), for example, found significant correlations between life events experienced and ratings of psychiatric impairment for an urban population. In addition, she reported a higher relationship when events were scored for life change rather than degree of desirability. The obverse has been found by both Myers et al. (1971) and

Vinokur and Seltzer (1975), who scored desirable and undesirable life events separately and observed a stronger relation between the latter and psychiatric symptomatology than between total life-change scores and impairment. Myers et al. (1971) also reported the finding that catastrophic events outside the control of the individual were especially important for differentiating individuals with high and low impairment scores. Work, financial, interpersonal, marriage, legal, and community crisis items, six of their ten categories of events, were reported twice as many times by severely impaired individuals as they were by unimpaired persons.

Some evidence that the occurrence of life events is systematically related to broad social conditions is provided by Catalano and Dooley (1977). They report a positive correlation of 0.77 between an aggregate measure of life events and regional unemployment in the Kansas City SMSA, thus suggesting a direct complementarity between life-events research and the work of Brenner (1973) cited above.

Two particularly important studies for the present discussion are reported by Dohrenwend (1973) and Myers et al. (1974). The former researcher attempted to establish the relation of social class, race, and sex to the experience of life events and psychiatric impairment. Of particular significance is the finding that both psychiatric impairment and life-change scores are inversely related to social class, and that a positive relationship between life-change scores and impairment is strongest in the lower class. Similar findings are observed when events probably outside the control of the individual are analyzed separately, and, in fact, these correlations are somewhat higher than those based on total life events. The results are interpreted as indicating that the epidemiological findings of greater psychiatric impairment in the lower classes result in part from: (1) the larger number of life events experienced by lower-class persons, many of which are probably outside their control; and (2) the greater likelihood that life-event experiences will have stressful impact on

lower-class individuals. The latter interpretation partially confirms Brenner's report (1973) that economic change has a very high impact on lower-class individuals.

Myers et al. (1974) report additional support for these findings based on an epidemiological survey in New Haven. Using total life events experienced, they found a positive relation between events and impairment but no relation between social class and life events. For individuals in all classes there is a greater likelihood of higher levels of symptomatology if large numbers of events are experienced during the previous year. However, a ratio of undesirable to desirable life events which is also related significantly to impairment scores was found to differentiate social classes. Upper-class subjects are as likely to have encountered as many life events as members of the lower class, but a significantly larger proportion of their events are desirable. In a follow-up study (1975) these investigators examined deviant cases—persons with low life events and high symptomatology, or high life events and low symptomatology. They report that the former were primarily lower-class individuals and the latter, upper-class. Low event-high symptom individuals are more often single, divorced, or widowed, dissatisfied with their jobs or unemployed and hospitalized during the previous year than high event-low symptom persons. The authors conclude that the extent of one's integration within the social system is a critical factor mediating the impact of life events and that significantly poorer social integration characterizes the conditions of lower-class life.

These findings are consistent with those of Dohrenwend (1973) and strongly suggest that stressful life events, often outside the control of the individual, together with the quality and extent of supportive resources may be distributed unequally across social classes. The work of Myers et al. (1975) is especially pertinent in view of their consistent finding of unemployment associated with persons who respond to few events with considerable strain. That work stress and job loss may operate as significant life events is also

suggested by Coates et al. (1969), who found that among individuals experiencing a demotion or loss of job, 61.5 percent report three or more symptoms on the Langner scale (1962) of psychiatric impairment, compared with 22 percent of those not experiencing demotion or job loss.

STRESS AND SUPPORT

Thus far the role of stress has been emphasized as serving an important mediating role between three societal and individual levels of analysis with regard to the effect of economic change on psychological functioning. The general findings of life-events research as well as its theoretical foundations add substance to this position. However, the mere occurrence of a life event is clearly not a sufficient basis for assuming that stress will be experienced. Life events are not inherently stressful in intensity or quality. Their stress values are dependent on other conditions. To account for stress it is necessary to examine both the origins of potentially stressful stimuli and the factors that condition the vulnerability of the person. For that matter, certain events such as a job promotion may have both stress and support potentialities simultaneously. Which potentiality dominates at any given moment in time is a function of complex personal and setting characteristics that define the social and psychological context in which the event is experienced.

Zubin (1975) proposes precisely this concept of vulnerability in developing a model for conceptualizing the schizophrenic episode. Rather than view schizophrenia as a disease entity, he focuses on the degree to which a person's coping efforts are likely to shift qualitatively from mastery and competence to helplessness and hopelessness, or to giving up. He does not equate coping or mastery with lack of vulnerability but views them as signs of the latter. He then relates vulnerability to life-event stressors by proposing that the former is what determines the stress impact of the latter. Episodic schizophrenic reactions constitute one possible outcome when vulnerability is high and stress per-

sistent. Vulnerability in this model, however, is conceived as orthogonal to social experience and the situational context and, thus, has the character of a relatively fixed personality trait.

Zubin's ideas are congruent with the position of Brown (1974), whose study of stressful life events emphasizes the unique meaning associated with events by different individuals. Brown argues against an exclusively actuarial approach to the study of life events and psychological functioning which, he believes, overlooks considerable variation among people in response to events. His solution to this problem is to broaden the scope of information collected to include characteristics of the immediate situation as well as the subject's detailed report of the significance of events.

A more explicit statement of the importance of contextual factors in mediating the impact of life events has been offered by Antonovsky (1974). In addition to personal resiliency and openness to alternative coping strategies during stress (concepts that are similar to Zubin's notion of vulnerability), Antonovsky emphasizes the importance of interpersonal relationships and ties to the community as sources of support.

Interpersonal Relationships

The significance of interpersonal relationships is partly confirmed by Schwab and Schwab (1973), who report that respondents' frequency of contacts with friends differentiates lower-class individuals from the more affluent and correlates significantly with rated impairment. More elaborate measures of social support, including interpersonal resources, have been employed by Nuckolls et al. (1972) in a study of life events and complications during pregnancy. Support was scored from a questionnaire assessing individual attributes such as ego strength, loneliness, and self-esteem, and social supports such as the quality of the marital relationship, interactions within the extended family, and adjustment within the community. While neither life events nor support resources alone predicted ease of pregnancy, those women with high ac-

cumulations of life events and high support scores had one-third the complication rate of those with many life events and low support scores.

The large body of literature on the role of the family in the etiology of mental disorder also provides considerable evidence substantiating the importance of interpersonal relationships for psychological well-being. On the one hand, interaction modes within the family have been implicated in the development of schizophrenia (Mishler and Waxler, 1965), neurotic symptoms (Cleveland and Longaker, 1972), psychosomatic illness (Titchener et al., 1960), and less severe behavior disorders (Alkire et al., 1971). Structural properties of families, such as broken homes due to death, separation, or divorce, have also been found to correspond with higher risk for both physical and emotional disorders (Chen and Cobb, 1960). This body of literature characterizes the family primarily as an independent source of stress which produces a variety of tension reactions in the individual.

Croog (1970) goes beyond a direct family-etiology perspective and argues that family stresses are at the same time responses to events in the larger social environment. For example, marital conflict is clearly a source of stress for children in a family. It is at the same time a phenomenon that may be precipitated by a stress external to the family such as the threat of job loss to a family member.

Psychological disorder has also been linked to the family viewed as a socializing agent. Kohn (1963), for example, found that the different experiences of lower-class and middle-class persons in their occupational roles may eventuate in different child-rearing practices with consequences for the later psychological well-being of children. Myers and Roberts (1959) report evidence that social class and psychiatric dysfunction are related in part through the family. They found that child-rearing practices, patterns of interpersonal relationships, and family role structure—as well as opportunities for employment and mobility—are correlated with the distribution of rated impairment across classes. They describe the family

as an important bridge between social class structure and individual impairment, emphasizing the family's function as a socializing agent and paying less attention to the contemporary role played by the family in supporting or failing to support the individual confronted with stress.

Brown et al. (1972) focus exclusively on current family life and report that the emotional environment within the home in both families of origin and families of orientation is directly and curvilinearly related to the likelihood of relapse among schizophrenic patients. Both too much warmth, interpreted as overinvolvement, and too little warmth or rejection are associated with the greatest probability of relapse. Furthermore, a family's negative emotional response appears to interact with a patient's problems at work, increasing the likelihood of relapse. These findings suggest that stress related to work is particularly debilitating when the family environment is either rejecting or engulfing.

Direct discussion of the family as a source of support during periods of employment crises is provided by several other investigators. Cavan (1959) describes the supportive response of family and relatives to the unemployed family member as involving both a mobilization of financial aid and emotional support. Komarovsky (1940) found that the attitude of one's spouse toward the unemployed partner and the prior strength of the marital bond were critical in determining the quality of adjustment to economic deprivation and job loss of many people during the Great Depression. She argues that work roles and family roles are the infrastructure of the individual's social integration. If one's role in the family is stable and secure, it can offset the negative consequences of job loss and the subsequent threat to one's social integration. Empirical support for this hypothesis is provided by Gore (1973), who found that unemployed men with little familial support consistently reacted to their job loss with considerable strain in the form of elevated cholesterol levels, increased depression, and more frequent illness. Strain was considerably lessened in men with supportive

marital relations and ties to the extended family and peer group.

Based on available findings in several areas of family research, there is substantial support for the view that the degree of stress associated with the experience of life events, economic and noneconomic, depends in part on the individual's familial supports. An assessment of the support characteristics of an individual's primary family group should enable researchers to account more fully for a person's level of psychological functioning than an assessment of his/her potentially stressful experiences alone. The family also represents an intermediate level of social analysis with demonstrable relationships to both more micro- and macro-social variables.

Ties to the Community

Interpersonal relationships occur within broader social contexts, as implied in Antonovsky's notion of ties to the community. His focus here is reminiscent of Durkheim's discussion of anomie (1951). He specifies normlessness, meaninglessness, and anomie as concomitants of weak ties to the community. While these qualities may reflect the condition of the person, we believe that they also depend on the accessibility of the community to its members via its degree of stability, predictability, and integration. The ecological studies of Faris and Dunham (1939), Levy and Rowitz (1973), and Dunham (1965) imply that aggregate characteristics of natural settings have a significant bearing on the quality of social interaction and life experience for the residents within them. Leighton et al. (1963) also studied the community as an organic entity capable of measurement in terms of its degree of integration vis-a-vis communication and interaction networks, level of social problems, strength of leadership, material resources, and sociocultural change. Unstable communities such as those associated with high levels of first admissions and readmissions to psychiatric facilities are hypothesized by Leighton to increase the likelihood that stressful events will be encountered and to provide minimal supportive resources for coping.

Further demonstration of the impor-

tance of community settings for the study of stress in relation to individual well-being is provided by the work of Stout et al. (1964). Although the concern of these investigators was to identify socio-environmental factors related to heart disease, their study of the residents of the small, working class community of Roseto, Pennsylvania has significance for the present discussion. They report the striking finding that the death rate from myocardial infarction in this area was one-half that for neighboring communities and considerably below the national norm for ethnically comparable communities. In order to control for genetic or constitutional factors, they located immediate relatives of persons residing in Roseto who were themselves living in other communities. Medical histories revealed that over the test period these blood relations exhibited a death rate from myocardial infarction similar to the national norm. Additional comparisons (Bruhn, 1966) of the citizens of Roseto with members of a neighboring community revealed no physiological or important behavioral differences other than lower status crystallization among Rosetans. Gore (1973) concludes that the ethnic and cultural homogeneity of Roseto and its network of closely-knit family and community relations were responsible for creating a highly stable environment which served to limit the amount of stress experienced by residents and mitigate the effects of crises that did occur.

Finally, Wechsler and Pugh (1967) have conceptualized the supportive quality of community settings in terms of the interaction between personal and environmental characteristics. They used variables such as age, marital status, and occupation to examine the degree of fit between person and setting for individuals admitted to psychiatric facilities. Towns with large numbers of hospitalized individuals were those in which patients were in the minority relative to the nonhospitalized populations of their home communities on nine of fifteen demographic characteristics. These researchers speculate that individuals living in areas where few residents are similar to them may ex-

perience considerable social isolation and, therefore, separation from the usual sources of social support, while those in the majority are better protected from stress as a result of their greater access to supportive relationships.

One potentially useful concept for operationalizing ties to the community is the social network. As Murphy (1973:1) has suggested, the special utility of this concept is that it allows us to "draw into a single frame of reference the community net which anchors on or around an individual and those community settings which make up the patterns of collective interaction in the community." Individuals' social networks provide knowledge of their social supports not limited to family relations. Aggregated for persons representative of an area such as a neighborhood or community, they constitute one measure of the support characteristics of the larger unit. For most people, social networks include family and neighbors in combination with an assortment of friends and acquaintances with whom the individual interacts through work, politics, travel and leisure. The network concept allows one to integrate these components and approximate the significant, total organization of people who are potential providers of support in times of stress.

Since Bott's early work (1957) demonstrating how characteristics of social networks are related to marital-role segregation, the importance of the social network as a mediating variable in the person-environment interaction has been studied with respect to such issues as personal crises (Boswell, 1969), help-seeking behavior (McKinlay, 1973), hospital admissions (Tolsdorf, 1976), and avowed happiness (Brim, 1974). In general, people with sparse, undifferentiated networks exhibit poorer coping behavior and emotional stability than those with highly elaborate networks that contain mutually supportive relations.

The work of Leighton (1959) and others (Dunham, 1965; Levy and Rowitz, 1973; Myers et al., 1975) also suggests that the extent of social integration within larger social environments has implications for psychological functioning. Leighton, in

particular, makes a conceptual distinction between an individual's supports and the supportive or non-supportive "climate" of a neighborhood. By aggregating certain scores from individuals' networks such as the numbers and frequencies of contact with neighbors, one can create a variety of indicators of the interaction patterns characteristic of a neighborhood. The concept of a social network, therefore, defines an important level of analysis in the construction of the process mediating the relationship of social class to psychological disorder. Preliminary use of this construct by other investigators also suggests that it can be operationalized in quantitative terms which provide the researcher with the opportunity to conduct empirical tests of the psychological significance of systems-level supports.

The assessment of social relations within the family and neighborhood has been described because of its potential for providing information about important social supports. We have not intended to imply, however, that the extent of material resources available in these settings is inconsequential for the individual's functioning in the face of stress. It has been evident to investigators of the psychological effects of unemployment that the material resources of persons, families, and neighborhoods are basic conditions of life that affect the life chances of the individual. In view of our interest in economically related stresses it is apparent that the general category of material resources deserves special attention in any assessment of the effects of the interaction between supports and life events. To some extent, the central role of material resources in the determination of psychological well-being has already been acknowledged by conceptualizing the effects of social structure on individual functioning within the framework of social classes. Clearly, a concomitant of differential class membership is differential access to material resources. Precisely how much of the relationship between social class and psychological impairment is a function of material vs. social characteristics of class conditions needs to be determined empirically.

SOCIAL CLASS RECONSIDERED

Throughout this discussion the three-dimensional character of social class has been emphasized by associating with it an extensive life space that includes not only individuals but the structure of their social relations at such levels as the family and neighborhood. Social class, therefore, is not simply a person-level attribute, but a set of social conditions within which behavior occurs. This conception of class is implicit in the work of Langner and Michael (1963), which was directed at the investigation of conditions of class life that might explain the inverse relation of socioeconomic status to rated impairment. At the same time this research strategy also provides a clear contrast to our own position relative to another issue pertaining to social class. By placing considerable weight on the potential role of early childhood stresses in accounting for class differences in adult impairment, Langner and Michael adopt what Krisberg (1972) calls a cultural explanation of the relationship between social class and behavior. This approach assumes that class operates through the internalization of values, belief, and behavior styles which originate early in the person's socialization experience and exert a continuing influence on behavior throughout life. This position is further reflected in the interpretation that Langner and Michael offer to account for the greater impairment in the lower class that is found when stress is controlled across classes. They suggest that lower-class individuals respond to stress with coping behaviors that stylistically mimic the symptoms of psychosis more often than upper-class persons, whose response styles more closely approximate neurotic characteristics. An alternative view is identified by Krisberg as a situational explanation of the relationship between social class and behavior which operates through the effect of social conditions (e.g. patterns of interaction) or non-social conditions (e.g. differences in financial resources). This perspective does not dismiss the existence of class-based values and beliefs, but views them as either dependent on class-shared, contemporary life circumstances, or as sec-

ondary to the pressure of immediate circumstances. This approach is implied in our earlier contention that the persistence of class differences in impairment when stress is controlled might be accounted for by differences in contemporary support resources, both social and material, which mediate the impact of stressors. The distinctions between these two views of the process connecting class to behavior is also apparent in "culture of poverty" (Lewis, 1966) vs. inequality of resources and opportunities (Ryan, 1971) explanations of poverty. Whereas the former treats poverty as the concretization of life-styles and values, the latter views it as the outcome of existing social and economic inequalities.

CONCLUSION

As stated initially, the relationship of social class to individual psychological functioning can be viewed as an aspect of the more general relationship of social structure and process to individual behavior. Although in principle this larger issue has a place in both psychological and sociological inquiry, few examples of research paying explicit attention to it can be found in either literature. The most direct implication of the present approach to the conceptualization of the social bases of mental disorder is that contributions to the etiology of dysfunction originating in different levels of social organization need to be examined holistically rather than separately, as independently occurring conditions. We have tried to demonstrate that the formulation of a conceptual framework to guide this kind of research can be aided by the integration of diverse bodies of existing research.

The core conceptual and methodological problem for this point of view is the specification and measurement of mutual processes of influence operating across multiple levels of analysis. The resolution of this problem is exceptionally difficult, given that different levels of social organization may have *unique* internal structures and dynamics which must be retained in any attempt to describe their interpenetration. This issue is addressed in detail by Lafferty (1970) as the funda-

mental obstacle to a conceptually integrated theory of social processes. It is reflected in the contradiction between the everyday perception of social reality as an integrated whole, on the one hand, and the disciplinary partitioning of the social order into conceptually unrelated spheres of activity, on the other hand.

The emphasis advocated in the present discussion of the contextual analysis of mental disorders represents only a partial response to this problem. Whereas it specifies some of the class-linked attributes of behavior contexts that have been shown to play a role in exacerbating or mitigating the effects of unemployment, it does not attend to processes of determination across settings. It is our belief, however, that one important precondition for the resolution of the more elusive problem of cross-level causality is repeated empirical observations of psychological functioning in diverse and broadly inclusive settings. The availability of time-series analytic procedures as tools for psychiatric epidemiology, techniques for partitioning group and individual effects, and theoretical constructs that permit the operationalization of relevant parameters of social contexts (e.g. the social network) makes it not only theoretically desirable but also methodologically possible to engage in programs of research along these lines. It is toward this end that we have attempted to integrate literature on social class, employment stress, and social support in analyzing the etiology of mental disorder and have given some explicit attention to the location of these factors at different levels of social organization.

REFERENCES

- Alkire, A., M. Goldstein, E. Rodnick and L. Judd
1971 "Social influence and counter-influence within the family of four types of disturbed adolescents." *Journal of Abnormal Psychology* 77:32-42.
- Antonovsky, A.
1974 "Conceptual and methodological problems in the study of resistance resources and stressful life events." Pp. 245-58 in B.S. Dohrenwend and B.P. Dohrenwend (eds.), *Stressful Life Events: Their Nature and Effects*. New York: Wiley.
- Araujo, G., P. Van Arsdel, T. Holmes and D. Dudley
1973 "Life change, coping ability, and chronic intrinsic asthma." *Journal of Psychosomatic Research* 17:359-63.
- Boswell, D.
1969 "Personal crisis and the mobilization of the social network." Pp. 32-56 in C. Mitchell (ed.), *Social Networks in Urban Situations*. Manchester: Manchester University Press.
- Bott, Elizabeth
1957 *Family and Social Network: Roles, Norms and External Relationships in Ordinary Urban Families*. New York: Free Press.
- Brenner, M. Harvey
1973 *Mental Illness and the Economy*. Cambridge, Mass.: Harvard University Press.
- Brim, J.
1974 "Social network correlates of avowed happiness." *Journal of Nervous and Mental Disease* 158:432-9.
- Brown, G.
1974 "Meaning, measurement, and stress of life events." Pp. 217-44 in B.S. Dohrenwend and B.P. Dohrenwend (eds.), *Stressful Life Events: Their Nature and Effects*. New York: Wiley.
- Brown, G. and J. Birley
1968 "Crises and life changes and the onset of schizophrenia." *Journal of Health and Social Behavior* 9:203-14.
- Brown, G., J. Birley and J. Wing.
1972 "Influence of family life on the course of schizophrenic disorders: A replication." *British Journal of Psychiatry* 121:241-58.
- Bruhn, J.
1966 "Social aspects of coronary heart disease in two adjacent ethnically different communities." *American Journal of Public Health* 56:1493.
- Buss, A.
1975 "The emerging field of the sociology of psychological knowledge." *American Psychologist* 30:988-1002.
- Cassel, J.
1966 "Social class and mental disorders: An analysis of the limitations and potentialities of current epidemiological approaches." Pp. 77-86 in K. Milles and C. Griff (eds.), *Mental Health and the Lower Social Classes*. Tallahassee: Florida State University Studies.
- Catalano, R. and D. Dooley
1977 "Economic predictors of depressed mood and stressful life events in a metropolitan community." *Journal of Health and Social Behavior* 18:292-307.
- Cavan, R.S.
1959 "Unemployment—crisis of the common man." *Marriage and Family Living* 21:139-46.
- Chen, E. and S. Cobb
1960 "Family structure in relation to health and disease." *Journal of Chronic Diseases* 12:544-67.
- Clark, R.
1949 "Psychoses, income, and occupational prestige." *American Journal of Sociology* 54:433-40.

- Cleveland, E. and W. Longaker
1972 "Neurotic patterns in the family." Pp. 159-85 in E. Handel (ed.), *The Psychosocial Interior of the Family*. Chicago: Aldine.
- Coates, D., S. Moyer and B. Wellman
1969 "Yorklea study: Symptoms, problems, and life events." *Canadian Journal of Public Health* 60:471-81.
- Cole, N.J., C.H. Branch and M. Orla
1957 "Mental illness." *American Medical Association Archives of Neurological Psychiatry* 77:393-8.
- Croog, S.
1970 "The family as a source of stress." Pp. 19-53 in S. Levine and N. Scotch (eds.), *Social Stress*. Chicago: Aldine
- Dayton, Neil
1940 *New Facts on Mental Disorders*. Springfield, Illinois: Charles C Thomas.
- Dohrenwend, B.S.
1973 "Social status and stressful life events." *Journal of Personality and Social Psychology* 28:225-35.
- Dohrenwend, Barbara S. and Bruce P. Dohrenwend (eds.)
1974 *Stressful Life Events: Their Nature and Effects*. New York: Wiley.
- Dohrenwend, B.P. and B.S. Dohrenwend
1965 "The problem of validity in field studies of psychological disorder." *Journal of Abnormal Psychology* 70:52-69.
- Dunham, H. Warren
1959 *Sociological Theory and Mental Disorder*. Detroit: Wayne State University Press.
1965 *Community and Schizophrenia: An Epidemiological Analysis*. Detroit: Wayne State University Press.
- Durkheim, Emile
1951 *Suicide*. Glencoe, Illinois: Free Press.
- Ekblad, M.
1948 "A psychiatric and sociologic study of a series of Swedish naval conscripts." *Acta Psychiatric Neurology Supplement*:49.
- Faris, Robert and H. Warren Dunham
1939 *Mental Disorders in Urban Areas*. New York: Hafner.
- Fontana, A., J. Marcus, B. Noel and J. Rakusin
1972 "Prehospitalization coping styles of psychiatric patients: The goal directedness of life events." *Journal of Nervous and Mental Disease* 155:311-21.
- Gardner, E. and H. Babigian
1966 "A longitudinal comparison of psychiatric service to selected socio-economic areas of Monroe County, New York." *American Journal of Orthopsychiatry* 36:818-28.
- Gore, S.
1973 *The Influence of Social Support and Related Variables in Ameliorating the Consequences of Job Loss*. Unpublished Doctoral Dissertation, University of Pennsylvania, Microfilm No. 74-2416
- Hollingshead, A.
1947 "Selected characteristics of classes in a middle western community." *American Sociological Review* 12:385-95.
- Hollingshead, August and Frederick Redlich
1958 *Social Class and Mental Illness*. New York: Wiley.
- Holmes, T.S.
1970 "Adaptive behavior and health change." Medical Thesis, University of Washington, Seattle.
- Holmes, T.S. and T.H. Holmes
1970 "Short term intrusions into the life style routine." *Journal of Psychosomatic Research* 14:121-32.
- Holmes, T. and M. Masuda
1974 "Life change and illness susceptibility." Pp. 45-72 in B.S. Dohrenwend and B.P. Dohrenwend (eds.), *Stressful Life Events: Their Nature and Effects*. New York: Wiley.
- Holmes, T. and R. Rahe
1967 "The social readjustment rating scale." *Journal of Psychosomatic Research* 11:213-18.
- Israel, Joachim and Henri Tajfel (eds.)
1972 *The Context of Social Psychology: A Critical Assessment*. New York: Academic Press.
- Jaco, Egbert
1960 *The Social Epidemiology of Mental Disorders*. New York: Russell Sage Foundation.
- Jacobs, M., A. Spilken, M. Norman and L. Anderson
1970 "Life stress and respiratory illness." *Psychosomatic Medicine* 32:233-42.
- Kasl, S.
1974 "Work and mental health." Pp. 171-96 in J. O'Toole (ed.), *Work and the Quality of Life*. Cambridge, Mass.: MIT Press.
- Kohn, M.
1963 "Social class and parent-child relationships: an interpretation." *American Journal of Sociology* 68:471-80.
1970 "Social class and schizophrenia, a critical review." Pp. 113-27 in H. Wechsler, L. Solomon and B. Kramer (eds.), *Social Psychology and Mental Health*. New York: Holt, Rinehart and Winston.
- Komarovsky, Mira
1940 *The Unemployed Man and His Family*. New York: Dryden.
- Komora, P. and M. Clark
1935 "Mental disease in the crisis." *Mental Hygiene* 19:289-301.
- Krisberg, L.
1972 "The relationship between socio-economic rank and behavior." Pp. 458-82 in G. Thielbar and S. Feldman (eds.), *Issues in Social Inequality*. Boston: Little, Brown and Company.
- Lafferty, W.M.
1970 "Industrialization and labor response: Notes toward the construction of a multi-level data structure." *Acta Sociologica* 13:161-88.
- Langner, T.
1962 "A twenty-two item screening score of psychiatric symptoms indicating impair-

- ment." *Journal of Health and Human Behavior* 3:269-76.
- Langner, T. and S. Michael
1963 *Life Stress and Mental Health: The Midtown Manhattan Study*. London: The Free Press of Glencoe.
- Lauer, R.
1973 "The social readjustment scale and anxiety: A cross cultural study." *Journal of Psychosomatic Research* 17:171-4.
- Leavy, S. and L. Freedman
1956 "Psychoneurosis and economic life." *Social Problems* 4:55-67.
- Leighton, A.
1959 *My Name is Legion*. New York: Basic Books.
- Leighton, D., John Harding, David Macklin, A. Macmillan and A. Leighton
1963 *The Character of Danger*. New York: Basic Books.
- Levin, H.
1975 "Work, the staff of life." Paper presented at the Annual Convention of the American Psychological Association, Chicago.
- Levy, Leo and Louis Rowitz
1973 *The Ecology of Mental Disorder*. New York: Behavioral Publications.
- Lewis, O.
1966 "The culture of poverty." *Scientific American* 16:19-25.
- McKinlay, J.
1973 "Social networks, lay consultation, and help seeking behavior." *Social Forces* 52:275-92.
- Mishler, E. and N. Scotch
1963 "Sociocultural factors in the epidemiology of schizophrenia." *Psychiatry* 26:315-43.
- Mishler, E. and N. Waxler
1965 "Family interaction patterns and schizophrenia: A review of current theories." *Merrill Palmer Quarterly* 11:269-315.
- Moscovici, S.
1972 "Society and theory in social psychology." Pp. 17-68 in J. Israel and H. Tajfel (eds.), *The Context of Social Psychology: A Critical Assessment*. New York: Academic Press.
- Murphy, J.
1973 "Social networks in a study of community integration." *Community Mental Health Epidemiology Working Paper*, No. 55, Nashville.
- Myers, J., J. Lindenthal and M. Pepper
1971 "Life events and psychiatric impairment." *Journal of Nervous and Mental Disease* 152:149-57.
- 1974 "Social class, life events, and psychiatric symptoms: A longitudinal study." Pp. 191-206 in B.S. Dohrenwend and B.P. Dohrenwend (eds.), *Stressful Life Events: Their Nature and Effects*. New York: Wiley.
- 1975 "Life events, social integration, and psychiatric symptomatology." *Journal of Health and Social Behavior* 16:121-7.
- Meyers, Jerome and Bertram Roberts
1959 *Family and Class Dynamics in Mental Health*. New York: Wiley.
- Nuckolls, K., J. Cassel and B. Kaplan
1972 "Psychological assets, life crisis, and the prognosis of pregnancy." *American Journal of Epidemiology* 95:431-9.
- Paykel, E.
1974 "Life stress and psychiatric disorder." Pp. 135-50 in B.S. Dohrenwend and B.P. Dohrenwend (eds.), *Stressful Life Events: Their Nature and Effects*. New York: Wiley.
- Paykel, E., J. Myers, M. Dienelt, J. Klerman, J. Lindenthal and M. Pepper
1969 "Life events and depression: a controlled study." *Archives of General Psychiatry* 21:753-60.
- Phillips, D.L.
1966 "The true prevalence of mental illness in a New England state." *Community Mental Health Journal* 2:35-40.
- Pugh, Thomas and Brian MacMahon
1962 *Epidemiologic Findings in U.S. Mental Hospital Data*. Boston: Little, Brown.
- Rahe, R.
1972 "Subjects' recent life changes and their near-future illness reports and a review." *Annals of Clinical Research* 4:393-7.
- Rahe, R., U. Lundberg, L. Bennett and T. Theorell
1971 "The social readjustment rating scale: A comparative study of Swedes and Americans." *Journal of Psychosomatic Research* 15:241-9.
- Rahe, R., J. Mahan, R. Arthur and E. Gunderson
1970 "The epidemiology of illness in naval environments, I: Illness types, distribution, severities, and relationships to life change." *Military Medicine* 135:443-52.
- Rahe, R. and J. Paasikivi
1971 "Psychosocial factors and myocardial infarction, II: An outpatient study in Sweden." *Journal of Psychosomatic Research* 15:33-9.
- Rahe, R., R. Rubin and R. Arthur
1974 "Serum uric acid, cholesterol, and cortisol variability during stresses of everyday life." *Psychosomatic Medicine* 36:258-68.
- Robinson, W.S.
1950 "Ecological correlations and the behavior of individuals." *American Sociological Review* 15:351-7.
- Roman, P. and H. Trice
1967 *Schizophrenia and the Poor*. Ithaca, N.Y.: Cayuga Press.
- Ryan, W.
1971 *Blaming the Victim*. New York: Vintage.
- Schroeder, C.
1942 "Mental disorder in cities." *American Journal of Sociology* 48:40-8.
- Schwab, J. and R. Schwab
1973 "The Epidemiology of Mental Illness." Paper presented at the American College of Psychiatrists, Sixth Annual Seminar for Continuing Education of Psychiatrists, New Orleans.

- Srole, Leo, Thomas Langner, Stanley Michael, Marvin Opler and Thomas Rennie
 1962 *Mental Health in the Metropolis: The Midtown Manhattan Study, Vol. I.* New York: McGraw-Hill.
- Stout, C., J. Morrow, N. Brandt and S. Wolf
 1964 "Unusually low incidence of death from myocardial infarction." *Journal of the American Medical Association* 188:845-55.
- Theorell, T.
 1974 "Life events before and after the onset of a premature myocardial infarction." Pp. 101-18 in B.S. Dohrenwend and B.P. Dohrenwend (eds.), *Stressful Life Events: Their Nature and Effects.* New York: Wiley.
- Titchener, J., J. Riskin and R. Emerson
 1960 "The family in psychosomatic process." *Psychosomatic Medicine* 22: 127-42.
- Tolsdorf, C.
 1976 "Social networks, support, and coping: An exploratory study. *Family Process* 15:407-17.
- Turner, R. and M. Wagonfield
 1967 "Occupational mobility and schizophrenia, an assessment of the social causation and social selection hypotheses." *American Sociological Review* 32:104-13.
- Vinokur, A. and M. Selzer
 1975 "Desirable vs. undesirable life events: Their relationship to stress and mental distress." *Journal of Personality and Social Psychology* 32:329-37.
- Wechsler, H. and T. Pugh
 1967 "Fit of individual and community characteristics and rates of psychiatric hospitalization." *American Journal of Sociology* 73:331-8.
- Wilcock, Richard and Walter Franke
 1963 *Unwanted Workers: Permanent Layoffs and Long Term Unemployment.* New York: Free Press.
- Wyler, A., M. Masuda and T. Holmes
 1971 "Magnitude of life events and seriousness of illness." *Psychosomatic Medicine* 33:115-22.
- Zubin, J.
 1975 "Vulnerability—A New View of Schizophrenia." Paper presented at the occasion of the Distinguished Scientist Award given by Section III, Division 12 of the American Psychological Association, Chicago.

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